

# Installation manual for steel foil-stain gauges



### Surface preperation

Please remove any paint with the help of a grinder.

To install the DMS on a steel beam a grain of 80-100 is quite enough.

In contrtast to a foil DMS, there shouldn't be any scretches on the surface left, because the foil is balancing local stress peaks itself. Remove rough dust crums with a dry cloth.

Afterwards you have to clean the surface with a Aceton-soaked cloth.

Move the cloth always from the inside to the outside. Avoid a back and forth moving. Dont put any paint at the glueing area of the DMS.



## Glueing of the DMS

Treat the the surface of the steel foil and on the module with "Conditioner" and "Neutralizer" by doing so the surfaces are getting started for bonding.

Put the silicon rubber, the aluminium-pad and the collet or a magnet with in reach. The glue has a processing time of approximetality 3 minutes.

Dose a small amount of the glue M30 on a clean sheet of paper, for example on a "oktavheftes".

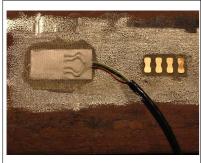


Mix the glue with a "tooth pick", or use the proper mixing duct. Put a closed layer of the glue M30 with the help of a tooth pick on one side of the steel foil.

Press the DMS on the aplication suface and move the DMS 2...3mm under light pressure to squeez out the spare glue on the edges. When the DMS scretches on the module then there was enough glue squeezd out.

Because of the high viscosity stickes the DMS immediately even on vertikal surfaces. Put the silicon cushion, AL-pad and the collet on the DMS to fix it.

Practise this step without glue and DMS!



#### **Bond check**

After approximately 10 minutes the collet can be removed. In your "Oktavheft" are all glue mixings documented.

Check if the glue surround the DMS completly. There shouldn't be any loose edges. Now you can glue the soldering connections.





### **Connection and covering**

The mantle and the shield of the wire on the DMS, which is situated near by the soldering connections can be removed. Is the connection wire of the DMS led over rough edges pr long distances, the mantel is a mechanic cover to protect the wire. The cable can be fixed with super glue. On sharp edges or bend angles the cable can be fixed with "Barrier E".

Cover the DMS and the rest of the glue with M-Coat D. The layer covers the glue edges as well.

The M-Coat-D prevents, that the connection wires bounces from the soldering connections, so it is easyer for you to solder it. Do everything step by step:

- a) Soldering of the wires of the DMS-1 and fix it with M-Coat D.
- b) Soldering of the wires of the DMS-2 and fix it with M-Coat D.
- c) Soldering of the connection wires.
- d) Covering of the soldered parts with M-Coat D.

Compare each step with the connection direction! Measure after each step the insulating resistance!



#### Connection

Fasten the connection wire with the pull relief first. Now you can solder the last connection!



#### Protecting cover

We advise as cover Barrier E with a wrapping of aluminium tape. Put this cover on the DMS after the glue totaly hardened (M-Coat D) (depending on the temperature 5 hours) please.



# Zubehör

Artikel	Beschreibung
DA-FAE4-St	Steel foil DMS with 1m connection wire
CEG 100C	Soldering connections dimensions 8,4mm x 35mm
M-Bond 30 Methacrylat	gellike, 2-component glue in a double cartridge 50ml55°C120°C, drop time 5min, , high viskos, crack filling;
M-bond 30 dose gun	Tool for 37ml und 50ml double cartridges
M-Coat D	Acryl paint, white
Barrier	rubber polymer without neopren cover
collet "Wolfcraft FZ 60"	Collet with the maximum range of 60mm
Permanent magnet	Horsehoe magnet 15mm x 57mm pole diameter
Silikon press cushion	40mm x 20mm x3mm
Aluminium pad	40mm x 20mm x 1mm
Connection wire	z.B. LiYcY, 2x2x0,25
Aceton	